

## BATFLIES (STREBLIDAE AND NYCTERIBIIDAE) IN THE EASTERN UNITED STATES, AND A NYCTERIBIID RECORD FROM SASKATCHEWAN<sup>1</sup>

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ABSTRACT: Batflies (Strebliidae and Nycteribiidae) are uncommon on bats of the eastern United States, east of Kansas, Oklahoma and Texas, but two species of streblids and three of nycteribiids have been reported from this area. The streblids are *Trichobius corynorhini* from *Plecotus townsendii* and *P. rafinesquii* and *T. major* from *Myotis austroriparius*. The nycteribiids are *Basilia boardmani* from *Myotis austroriparius* and *M. lucifugus*, and *B. forcipata* and *B. antrozoii* from *Tadarida brasiliensis*.

DESCRIPTORS: Batflies of eastern U.S. bats

There are a number of records of streblid and nycteribiid flies on bats from Central and South America and in the western United States from Texas, Oklahoma and Kansas westward. There are few records east of these states. The purpose of this paper is to summarize records of Strebliidae and Nycteribiidae of the eastern states and to present new state and host records for *Trichobius corynorhini*.

Two species of Strebliidae and three of Nycteribiidae are known from the eastern United States as follows.

### STREBLIDAE

*Trichobius corynorhini* Cockerell, 1910: *T. corynorhini* has been reported from West Virginia by Wilson (1946), Whitaker (1957) and Handley (1959), and from Arkansas by Sealander and Young (1955). Handley (1959) reported *T. corynorhini* on *P. townsendii*, but the other three reports cited *P. rafinesquii* as the host. However, the genus *Plecotus*

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was revised by Handley (1959). Following Handley's classification, the bats examined by Wilson (1946), Whitaker (1957) and Sealander and Young (1955) were all *Plecotus townsendii* (Handley, 1959; reidentification by Whitaker; and Personal Communication from Sealander, respectively). In addition, we (Easterla) also took 4 individuals of *T. corynorhini* on *Plecotus townsendii ingens* on 23 February, 1963, at Meade Cave, Stone Co., Missouri. Also, B.V. Peterson (Pers. Comm.) reports one male *Trichobius corynorhini* from a bat (species not clear) from Mud Cave, Reed's Spring, Stone County, Missouri, September 11, 1946, taken by J. Brennan. These constitute the first records of streblid flies in Missouri. Thus, all reports of *T. corynorhini* in the eastern United States refer to *P. townsendii* as the host. *Plecotus townsendii* is the normal host for this parasite. There are no previous records of *Trichobius corynorhini* on *Plecotus rafinesquii*.

On 24 October 1971 Easterla took two individuals of *Trichobius corynorhini* on *Plecotus rafinesquii* from Bill Johnson's Cave, Sand Gap, Jackson County, Kentucky. This constituted the first record of this parasite on *P. rafinesquii*. B.V. Peterson (Pers. Comm.) reports 10 male and 11 female *Trichobius corynorhini* from *Plecotus townsendii* taken 28 March 1964 by W.H. Davis from a cave in northwestern Lee County, Kentucky. R.L. Wenzel (Pers. Comm.) reports this fly from Tulip Cave, Cave Hollow, Lee County, Kentucky, taken 10 January 1968. These are the first records of streblids from Kentucky.

*Trichobius major* Coquillett 1899: In the eastern United States, *T. major* has been reported from *Myotis austroriparius* in Florida by Jobling (1938) and Rice (1957). In addition, R.L. Wenzel (Pers. Comm.) reports 2 flies of this species from *M. austroriparius* from Cavern State Park, 3 miles N. Marianna, Florida, Fall, 1953, and 2 from *Myotis grisescens* from Indian Cave, Marianna, Florida, taken 4 February 1951. Rice stated that this is the most conspicuous parasite on *M. austroriparius* in Florida, with bats carrying one to six flies. Ross (1961) states that *Myotis velifer incautus* is the normal host for this species in the western United States.

#### NYCTERIBIDAE

*Basilis boardmani* Rozeboom, 1934: *B. boardmani* is an eastern species and was first described from *Myotis austroriparius* from Florida (Rozeboom, 1934), where Rice (1957) reported it to be common. It has since been reported from *Myotis lucifugus* from Georgia (Peterson, 1960), and from *Myotis austroriparius* from Illinois (Parnalee, 1955).

*Basilis forcipata* Ferris, 1924: This is a parasite of western species of *Myotis*. The single eastern record is from *Tadarida brasiliensis* from Louisiana (Ferris, 1924). In addition, B.V. Peterson (Pers. Comm.) identified a *Basilis forcipata* from *Lasionycteris noctivagans* from Govenlock, Saskatchewan, taken June 7, 1933, by H.F. Hughes. This represents the second province from which nycteribiids have been taken, and is by far the most eastern Canadian record.

*Basilis antrozoi* (Townsend, 1893): The single eastern record is from *Tadarida brasiliensis* from Louisiana (Ferris, 1924).

## Key to Eastern Batflies

1. Winged forms . . . . . Streblidae: *Trichobius* . . . . . 2  
 Wingless forms . . . . . Nycteribiidae: *Basilina*. . . . . 3
2. Eight scutellar setae; setae in center of mesonotum reduced in size, much smaller than lateral setae . . . . . *Trichobius major*  
 Four scutellar setae; setae in center of mesonotum not reduced, nearly equal in size to lateral setae of mesonotum . . . . . *Trichobius corynorhini*
3. Posterior margin of mesonotum with a prolonged, upright, finger-like process . . . . . *Basilina boardmani*  
 No such process . . . . . 4
4. Abdomen with 2 visible tergites . . . . . *Basilina corynorhini*  
 Abdomen with 3 visible tergites . . . . . *Basilina antrozoi*

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